

Swift Portable: The Perfect Combination



▶ Information Booklet

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About DBI America Corp.

Dental Business International (D.B.I.) is a privately owned company with over twenty five years of Dental field experience.

DBI America is a manufacturer and distributor of small dental equipment used in the human and veterinarian fields. Today our products are distributed in over 30 countries through 200 dealers.

In 2005 we were pleased to introduce several new patented products. Our Research and Development Team is constantly working to anticipate the practitioner's needs and update current products.

In the fall of 2008 DBI America became an ISO 13485 certified company with several CE approved products.



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When Quality Matters

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Swift Portable

Piezo Ultrasonic Scaler

The Swift Portable is a efficient, portable, self-contained Piezo Ultrasonic Scaler requiring only electrical connection. The unit includes an exterior water hook up and a 500ml self pressurized reservoir that can be filled with either water or medicament. The Swift features an array of tips with linear movement to minimize noise, reduce patient discomfort and speed calculus removal. A fine mist and an optional LED handpiece enhances visualization. Autoclavable sleeves and tips eliminate the need to autoclave the handpiece and therefore increases handpiece life.

Part# SW03.37PL



*Featured here with
the [Ergo UltraLight
LED Handpiece]*

Benefits

- 28,000-30,000Hz of Power
- Optional 70,000 Lux LED Handpiece
- Large 500ml/16oz Bottle
- Fast Handpiece System to take you from one patient to the next effortlessly.
- Wide Tip Selection including Endodontics, Apical Surgery and Periodontal.
- Frontal Controls for better Accessibility
- Smooth Surface for easy Asepsis
- Set Composed of Three Tips, Three Sleeves and Three Wrenches
- Compact, Lightweight and Self Contained

Technical Data

External Dimensions	6.3"W X 8.5"L X 6.5"H (in) 16.5W X 21.6L X 16.5H (cm)
Packaged Unit Dimensions	12.1"W X 9.3"L X 6.5"H (in) 30.8W X 23.5L X 16.5H (cm)
Actual Weight	3.5 lbs / 1.6 kg
Packaged Unit Weight	6.0 lbs / 2.7 kg
Power	28,000 Hz - 30,000 Hz
Voltage / Hz	115V / 60 Hz or 230V / 50 Hz
Water Consumption	10 ml / min - 50 ml / min
Water Supply Pressure	2 - 5 bars (0.2 Mpa - .5 Mpa ; 30 - 72 psi)
Limited Warranty	2 Years Warranty

The Ergo Experience

Ergonomics - the science of designing the job, equipment and work place to fit the user to minimize or prevent repetitive strain injuries which can develop over time.

Ergo Basic Handpiece

The Ergo Basic handpiece is designed with the user in mind. With its featherweight lightness and its soft silicone feel the Ergo Handpiece makes your work more efficient and pleasant without causing fatigue to the user. Autoclavable Tips and Sleeves eliminating the need to autoclave the handpiece and therefore increases handpiece life.



Featured here with the (Basic Ergo Handpiece) and ErgoGrip Basic Sleeve



ErgoGrip Basic Sleeve

- Design with a special traction surface for better grip, superior control and less risk of slipping
- Silicone absorbs vibration for superior comfort
- Minimizes fatigue on fingers and hands
- Silicone surface is dirt resistant and easy to clean
- Autoclavable to prevent contamination and promotes excellent hygiene and safety.



...and then there was Light!



Ergo Ultra Light Handpiece

The Ergo Ultra Light Handpiece is a premium handpiece with LED illumination giving more visibility and making work more efficient by removing the uncertainty that everything you want to remove is actually gone. Also equipped with autoclavable tips and sleeves increasing handpiece life. Its featherweight lightness and silicone feel makes it a pleasant Ergo Experience.

Ergo UltraLight



Why LED?



Most scalers and hand instruments are not equipped with light but depend on the units overhead lights.



Scalers with light generally use halogen light that provides approx. 10,000 Lux only.

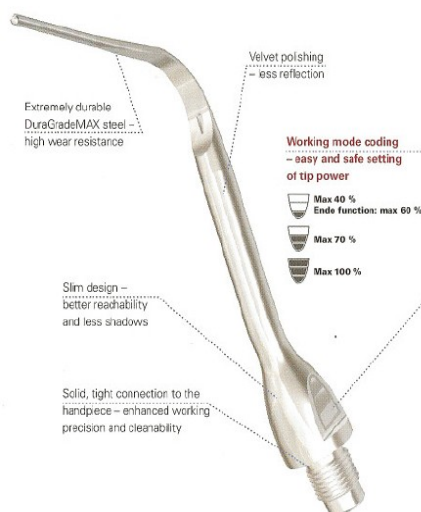


Ergo UltraLight Handpiece uses LED Lights which provides approx. 70,000 Lux which makes it superior to other lights in today's current market.

Multi-Purpose Ultrasonic Tips

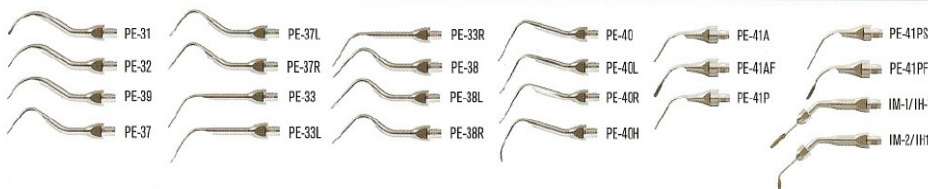
A Tip for You.

69 different tips - solutions for Periodontics, Endodontics, Apical Surgery, Restorative and Sterile treatment. All tips are made with the DuraGrade Max high wear resistance steel with a velvet polishing for less reflection.



Scaling tips are available in a large variety of designs so as to remove tartar and calculus on all of a tooth's surface. The range includes tips for both supragingival and subgingival scaling. Different models are available in both left and right angle versions to further enable access to furcations.

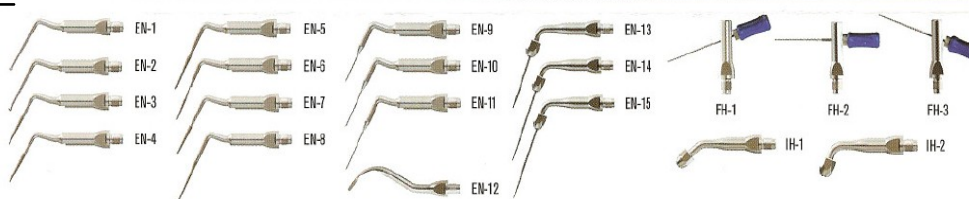
Periodontics/Scaling



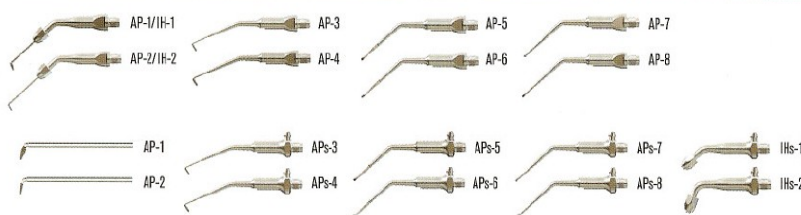
Minimally-invasive excavation



Endodontics



Apical surgery/Sterile



Special purpose



Endodontic tips are excellent in the removal of posts, the removal of dentin in pulp chambers, finding and widening orifices, preparing canals, removing broken instruments and cleaning prepared canals.

Special Purpose tips can be used for crown removal, amalgam condensation and application of thixotropic cementation.

Minimally-Invasive Excavation Tips are diamond-coated for small preparations, crown margins, cleaning fissures and can be used for treating children and nervous patients by the low noise levels.

Apical Surgery/Sterile Tips are diamond-coated and can be used for opening and clearing the root when doing retrograde operations. The tips are designed with longer necks for excellent visibility and in combination with the diamond-coating the ultrasonic vibrations give a higher degree of tactility and precision.

It Proves to have Ultrasonic.....

Clinical Studies

The Clinical Studies provided were performed on the Amdent Piezo Ultrasonic Scaler which is incorporated in the Swift Portable and is substantially equivalent. Many years of clinical evaluations and tests prove that Ultrasonic is superior to conventional hand scaling methods and the magnetostrictive scalers.

Scand J Dent Res 1994; 102: 156-60
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DENTAL RESEARCH
ISSN 0029-615x

Root surface texture after different scaling modalities

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Jacobson L, Blomlöf J, Lindskog S: Root surface texture after different scaling modalities. *Scand J Dent Res* 1994; 102: 156-60. © Munksgaard, 1994.

Root surface texture after scaling with hand instruments, ultrasonic scalers (Amdent 830 and Cavi-Med 2000), and a sonic scaler (Titan-S) was assessed in vitro. The experimental material consisted of 48 extracted human teeth divided into six groups. Root surface texture was assessed with scanning electron microscopy (SEM). Hand and sonic instrumentation produced large grooves and removed cementum evident at a magnification of $\times 70$, while the root surface alterations after ultrasonic instrumentation were not detectable below a magnification of $\times 500$. The working principle of each scaling instrument in relation to its effect on the root surface was discussed.

Key words: automated scalers; hand instrument; scanning electron microscopy; teeth, roots.

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Accepted for publication 11 September 1993.

The objective of scaling and root planing is to create a root surface which is biologically acceptable to the surrounding healing soft tissues (1-3), and which is sufficiently smooth to facilitate oral hygiene procedures and retard microbial recolonization (4-10). Available literature indicates that thorough scaling, regardless of type of instrument, removes calculus efficiently and produces an acceptable root surface for soft-tissue healing (11, 12). This appears also to be the case without the often recommended final step of root planing (11). However, the root surface appearance after scaling has been reported to show differences in texture depending on the type of instrument.

Some dentists maintain that scaling with hand instruments produces a smoother root surface than ultrasonic scalers (13-15). Others assert that there is no difference between the two methods (16), while still others find ultrasonic scaling to be superior to hand instrumentation, both in smoothness (17-20) and ability to remove subgingival calculus (14) and plaque (15, 21).

The ultrasonic scalers in all of the above studies generate tip vibrations through magnetostrictive power generation. A new generation of ultrasonic scalers utilizes the piezoelectric principle of power generation. The two different ways of generating tip vibrations may be expected to show differences in clinical performance when applied to a root surface, although detailed knowledge is lacking.

Sonic scalers are the latest addition to automated scaling instruments. They are reported to produce

root surfaces comparable to surfaces after ultrasonic scaling at a medium power setting (22), while ultrasonic high power produces greater surface roughness, although some recent reports have indicated the reverse (23, 24).

As indicated above, reports disagree on the effect of different scaling instruments on root surface texture. In addition, sonic and piezoelectric scalers have only to a limited extent been compared with earlier scaling methods. Since maximal root surface smoothness is one of the recommended objectives of scaling, we considered it of interest to study root surface texture after scaling with various manual and automated scaling instruments available on the market.

Material and methods

Forty-eight human teeth, extracted for orthodontic reasons, were immersed in a 10% aqueous solution of sodium hypochlorite for 30 min and then rinsed thoroughly in running tap water. The lingual surfaces of the teeth were planed with a diamond stone to facilitate later mounting for scanning electron microscope (SEM) examination. The teeth were randomly divided into six groups. Half of the buccal root surface in all teeth was scaled with either hand instruments or different ultrasonic or sonic scalers, the other half serving as untreated control. The test and control areas were outlined by one apical and one coronal transversal groove separated by a distance varying between 6 and 10 mm.

Group 1 – The root surfaces were treated with a brand-new curette (McCall 13/14, LM-Dental, Turku, Finland). The curette was applied with the face at an angle of 80–85° to the root surface according to generally accepted principles (25). The curettes were applied with a pressure to the root surface of approximately 500 Pa. Each test surface was exposed to 10 pull strokes.

Group 2 – The root surfaces were treated with a curette similar to the one in Group 1, resharpened by the McBinn method (McBinn, St Paul, MI, USA) to improve edge smoothness, as stipulated by the manufacturer. Each test surface was exposed to 10 pull strokes.

Groups 3 and 4 – The root surfaces were treated with 10 back-and-forth strokes with an ultrasonic piezoscaler (Amdent 830, Amdent AB, Nynäshamn, Sweden) fitted with tip No. 33 (Group 3) or tip No. 39 (Group 4). The lateral side of the tip was applied to the root surfaces with the handle not deviating more than 10° from the long axis of the tooth. A pressure not exceeding 50 Pa was employed. The power setting was medium.

Group 5 – The test surfaces were treated with 10 back-and-forth strokes with an electromagnetic scaler (Cavi-Med 2000, Dentsply, New York, NY, USA) fitted with tip No. TFI-10 and applied to the root surface as described for Groups 3 and 4. A pressure not exceeding 50 Pa and a medium power setting were used.

Group 6 – The test surfaces were treated with 10

double-strokes with a sonic scaler (Titan-S, Star Dental, Syntex Dental Products, Valley Forge, PA, USA) fitted with a universal tip and applied to the root surface as described for Groups 3 and 4. A pressure not exceeding 50 Pa and an air pressure of 3 bar were used.

After scaling, the teeth were fixed in 10% neutral-buffered formalin. After dehydration in a graded series of ethanol with 100% acetone as the final step, the teeth were mounted on aluminum stubs, gold-coated with a sputter technique (26), and examined in a Jeol SEM operated at 5.0 kV and at tilt angles between 0° and 40°.

Amplitude measurements – The tip movements of the sonic and ultrasonic instruments were measured with a light microscope fitted with a measuring graticule (Epimicroscope IM 35, Zeiss, Oberkochen, Germany). The maximum amplitude of each tip was measured both along the long axes and at right angles to the long axes of the handpieces holding the tips. This corresponds to a movement of the tips parallel and at right angles to the root surface, respectively.

Results

No periodontal soft-tissue remnants were observed, in either test or control areas. In most specimens, small cracks were seen, presumably artifacts from the dehydration process.

The control areas showed an even, mosaic-like

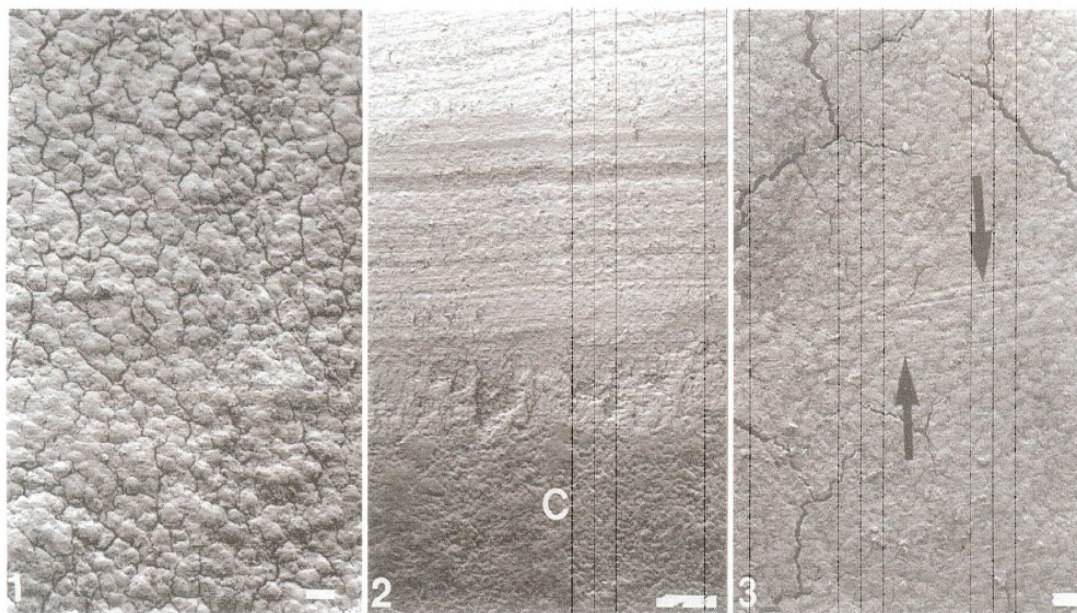


Fig. 1. Unscaled control area showing mosaic-like cementum surface. Bar = 10 µm. Fig. 2. Hand-instrumented root surface with longitudinal grooves. Control area (C). Bar = 10 µm. Fig. 3. Root surface scaled with Amdent 830 scaler fitted with tip No. 33, showing shallow longitudinal grooves (arrows). Bar = 10 µm.



appearance indicative of cementum (Fig. 1). In general, all the cementum surfaces showed a smoother and more regular appearance in the coronal half of the control areas than the apical half. Thus, the following assessments and comparisons were made in the coronal parts of the test and control areas to exclude possible influence of root surface irregularities. The root surfaces in each treatment group showed uniform alteration patterns with three clearly distinguishable surface appearances, depending on treatment. The different root surface appearances will be described according to treatment group.

Groups 1 and 2 – The hand-instrumented cementum surfaces displayed similar surface textures irrespective of the quality of the cutting edge of the two instruments. Grooves and excavations running parallel to the long axis of roots were clearly visible at a magnification of $\times 70$ (Fig. 2). The grooves sometimes crossed over each other, indicating some overlapping strokes.

Groups 3, 4, and 5 – Only minor surface alterations were visible on a smooth cementum surface. Excavations were seen running parallel to the long axis of the roots. Even at a magnification of $\times 500$, the excavations were less pronounced than those seen in Groups 1 and 2 (Fig. 3). Occasionally, larger and apparently deeper excavations were found in the scaled areas (Fig. 4).

Group 6 – Large areas devoid of cementum were seen at magnifications of $\times 70$ (Fig. 5A). These were seen in all teeth and on almost all test surfaces. Denuded dentinal tubuli were only occasionally seen in the treated areas. In some areas, the cementum seemed to have split off or been torn from the root surface. A clear demarcation zone with an irregular contour bordering the control areas was evident (Fig. 5B).

Amplitude measurements – The numeric values of the amplitude measurements are summarized in Table 1. Amdent tips showed only longitudinal movements. The other instruments had both longitudinal and transversal patterns of movement, which were most pronounced for the Titan-S tip.

Discussion

The experimental procedure in this in vitro study was designed to mimic scaling in a clinical setting as much as possible. For comparison between instruments, the number of strokes was standardized. The objective was to cover the selected test surface without unnecessary overlapping. Consequently, the whole surface showed the effect of one or, at the most, two strokes. Since loss of tooth substance was not included in the study, the different stroke design (10 pull strokes for curettes and 10 back-

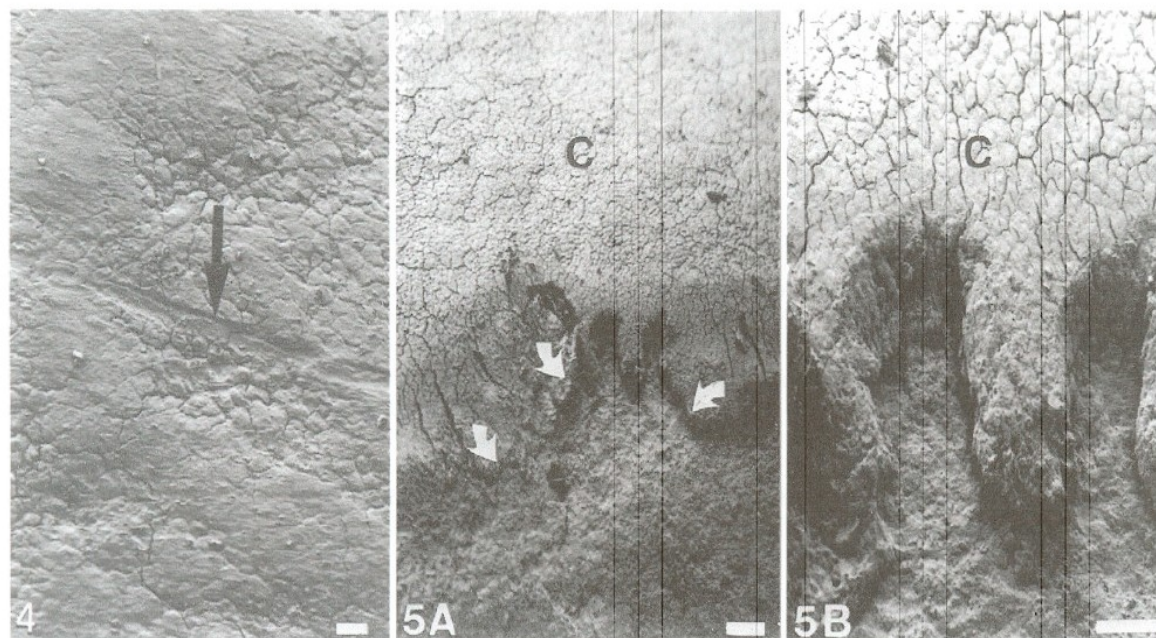


Fig. 4. Root surface scaled with Cavi-Med 2000 scaler fitted with tip No. TFI-10, showing one deep longitudinal groove (arrow). Bar = 10 μ m. Fig. 5. A, root surface scaled with Titan-S scaler fitted with universal tip, showing border zone (arrows) between control area (C) and scaled area, where cementum seems to have split off or been torn off. Bar = 100 μ m. B, detail from Fig. 5A showing border area between test area treated with Titan-S scaler and control area (C). Note well-demarcated deep defects in root surface. Bar = 50 μ m.

Table 1

Amplitude of tip movements for automated scaling devices. Power settings were same as during applied in vitro experiments

Scaling device	Working	Amplitude (μm)	
		Longitudinal	Transversal
Amdent 830	33	75	0
Amdent 830	39	112	0
Cavitron	TFI-10	119	37
Titan-S	Universal	175–228	175–228

and-forth strokes for the automated scalers) should not influence conclusions on root surface texture.

Unlike control surfaces, all scaled surfaces were altered. The results clearly show comparatively smooth surfaces after ultrasonic scaling, whereas hand and sonic scaling produced rough, uneven surfaces, each with a characteristic pattern probably reflecting the working principle of each instrument. The longitudinal grooves of varying depth seen in the root surfaces after hand instrumentation with a brand-new curette or a McBinn sharpened curette probably reflect the irregularities of the edges of the hand instruments (Fig. 2). Because the McBinn sharpened curette produced almost the same pattern as the brand-new curette, the sharpening procedure may have been insufficient to eliminate all irregularities of the edge. Moreover, the operating procedure of the hand instruments exerted a higher pressure (500 Pa) on the scaled root surface than did that of the ultrasonic scalers (50 Pa). Thus, it was apparent that hand instruments produced a rougher root surface and probably removed more tooth substance than ultrasonic scalers.

The tip movement of the three automated scalers is generated by different principles, resulting in varying amplitudes and patterns of movement (Table 1). These differences may explain the observed variations in root surface texture. Theoretically, a longitudinal movement parallel to the root surface might result in a less pronounced abrading effect on the root surface than a transversal motion perpendicular to the root surface. In a clinical setting, the latter involves a hammering movement on the root surface.

The tip of the Titan-S scaler is activated by an eccentric bar operated by an air turbine. This elicits tip movements in a three-dimensional pattern (27, 28). The transversal component of the pattern of movements appears to be at least as large as the longitudinal component (Table 1). Consequently, Titan-S tips show a rather unpredictable movement pattern, resulting in uneven root surfaces (23, 24), and loss of tooth substance was about 10 times greater than during ultrasonic scaling (19). With an amplitude of about 200 μm , irregular loss of cementum substance appears to be unavoidable,

as observed in the present study. The observation of complete removal of the cementum layer in large areas and marked roughness in others raises the question of whether the surface resulting from scaling with the Titan-S is clinically acceptable. The ability to remove calculus is undeniable, but it may be argued that a rough surface retains plaque. Complete loss of cementum has also been found to be less conducive to the regaining of lost clinical attachment than an intact layer of cementum (29), and repeated scaling at regular intervals results in macroscopic loss of tooth substance.

The scaling tip of the Amdent 830 piezoelectric scalers is anchored in the piezoelectric transducer by a thread socket, forming a rigid unit. This produces a strictly longitudinal movement pattern without any transversal component (Table 1). Thus, the tip moves only parallel to the root surface. The Cavitron tip is operated by an electromagnetically activated stack in the handpiece, from which the vibrations are transmitted to the tip. Stack and tip form a unit fixed to the handle by a rubber ring, resulting in a flexible connection between tip and handle. Tip motion is normally not linear but shows a pattern of elliptic or circular movement (Table 1). Although a transversal movement was recorded for the Cavitron tip while no such vector was seen for the Amdent tips, the scaled surfaces were similar in texture. It thus appears that the transversal component of the Cavitron tip (37 μm) with medium power setting is insufficient to produce any detectable effects on root surface texture. Earlier reports of rough surfaces after Cavitron scaling (30–34) probably reflect the result of operating the equipment with a high power setting, and such reports may explain the earlier recommendations to perform root planing with hand instruments after ultrasonic scaling.

Although differences in surface texture were found among the different modes of scaling, it remains to be determined whether these differences are of clinical significance. It appears from the literature that subgingival root surface texture is not important for periodontal healing. However, it can be argued that a rough root surface supragingivally retains plaque better (5, 6) than a smooth, and thus requires a higher standard of oral hygiene of the patient. Thus, instruments which produce an excessive root surface roughness should be avoided.

Acknowledgments – This study was supported by a grant from the Swedish Medical Council (No. 6651).

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Clinical Research Associates Newsletter[©]

VOLUME 17, ISSUE 4 · APRIL 1993

17TH YEAR OF PUBLICATION DEDICATED TO SERVING DENTISTRY

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page 4

SUBJECT: ULTRASONIC & SONIC SCALERS

There are many ultrasonic & sonic scaling instruments available today. Pertinent clinical questions are: (1) What are ultrasonic & sonic automated scalers? (2) What are advantages & disadvantages of automated scalers? (3) Do various designs differ clinically? & (4) What are common operator errors? Report below addresses these questions.

1. WHAT ARE ULTRASONIC & SONIC AUTOMATED SCALERS?

Clinically, most obvious differences between ultrasonic & sonic scalers are: (a) Scaling power. Ultrasonics can remove tenacious deposits, while sonics are best suited for routine recall patients; & (b) Delivery systems. Ultrasonics require separate unit & controls or can be built into unit delivery system, while sonics attach to existing air/water hose & are controlled by handpiece foot pedal.

A. ULTRASONIC SCALERS— 2 types exist: (1) Magnetostrictive (i.e. Cavitron by Dentsply); & (2) Piezoelectric (i.e. Amdent 830 by Amdent AB, Sweden). In magnetostrictive systems, electrical energy is applied to coil in handpiece & magnetically changes dimension of metal stack creating elliptical or linear movement of tip at frequency of about 25,000-30,000 cycles per second (cps). Significant heat is generated & requires water for cooling. In piezoelectric systems, electrical energy is applied to crystal which emits vibrations in linear pattern at frequency of about 25,000-40,000 cps. Almost no heat is created so water is for lavage only. Both types of scalers can remove tenacious deposits well. Clinical differences are attributable to access provided by handpiece & scaler tip design rather than energy source.

B. SONIC SCALERS— All sonic scalers use compressed air & water delivered through hose designed for high & low speed handpieces. Air moves rotor system within scaler that vibrates working tip in elliptical pattern at frequency of about 2,000-6,000 cps. Although energy is not high enough to remove tenacious deposits, it is well suited for less tenacious deposits typical of patients treated frequently.

2. WHAT ARE ADVANTAGES & DISADVANTAGES FOR USE OF AUTOMATED SCALERS?**A. ADVANTAGES**

- (1) Rapid removal of gross calculus.
- (2) Improved patient comfort.
- (3) Improved operator comfort.
- (4) Simultaneous water lavage & scaling. (Some have ability to deliver medication lavage during scaling)

B. DISADVANTAGES

- (1) Less or no tactile sense.
- (2) Reduced control in difficult access areas.

- (3) Amount of coolant water necessary for magnetostrictive systems can be difficult to suction.
- (4) Cost of instruments.
- (5) Infection control limitations. (Handpieces of most ultrasonic scalers cannot be heat sterilized.)
- (6) Space required for ultrasonic scaler control unit in critical area of operator.
- (7) Noise can be irritating to some people.
- (8) Ultrasonics may interfere with pacemakers.

3. DO VARIOUS DESIGNS DIFFER CLINICALLY? (Chart on pages 2-3 summarizes 22 instruments.) YES. CRA studies showed clinical superiority could not be determined by characteristics measurable in lab such as tip frequency, amplitude, & path of motion; type of energy source; & cavitation. Instead, clinical differences were power of ultrasonics vs. sonic instruments, access achieved by handpiece & tip designs, & convenience features.

4. WHAT ARE COMMON OPERATOR ERRORS?

- Tip not parallel to long axis of tooth & point of tip used to scale tooth.
- Excessive pressure placed onto tip during scaling.
- Failure to use lowest effective power setting.
- Failure to use adequate H₂O flow to cool tip.
- Failure to flush H₂O lines before & after each use.
- Failure to replace tips at regular intervals. (About every 6-12 months, depending on frequency of use.)
- Failure to keep tip in constant motion.
- Failure to read & adhere to instruction manual.
- Modification of tip size &/or shape by clinician.

5. CRA CONCLUSIONS:

Ultrasonic & sonic scalers can differ clinically. Scaling efficiency was not related to mechanical characteristics, but to handpiece & tip designs, available energy, & convenience features.

• ULTRASONIC ENERGY was needed to remove tenacious deposits. AMDENT 830 removed gross calculus fastest, but CAVITRON 3000, PIEZON MASTER, & AUTOSCALER removed calculus rapidly & had better tip designs. LE CLEAN MACHINE & 25/30 TURBO are best values with high ratings for calculus removal & tip designs, & cost of \$395 & \$475, respectively, not including tip cost of \$60 each.

• SONIC SCALERS performed adequately for deposits removed at frequent & regular intervals. DENSONIC & MM 3300 had fastest removal of moderate to light calculus, but DENSONIC had better tip designs. SCALE RITE, VIPER SONIC, & MM 3300 are best values at \$269, \$429, & \$495, respectively, including cost of tips. 360° light around scaler tip on SONIC-FLEX LUX was rated excellent & considered desirable feature.

"CLINICAL SUCCESS IS THE FINAL TEST."



INTERNATIONAL CLINICAL RESEARCH —

(Summaries of research deemed particularly interesting to clinicians.)

1. DUAL-CURE RESIN CEMENTS ACHIEVE MAJOR PORTION OF CURE THROUGH EXPOSURE TO CURING LIGHT

Rueggeberg, F.A., et al., Oper Dent 1993; 18:48-55.

Degree of monomer conversion using infrared spectra was performed on 4 dual-cure resin cements (Heliolink by Vivadent, MirageFLC by Chameleon, Porcelite by Kerr, Ultra-Bond by Den-Mat) using: (a) no light exposure; (b) 60-second light exposure through Mylar only; & (c) 20-second or 60-second cure through overlying cured wafer of composite resin 1.5 mm thick. Results showed: (a) auto cure alone was always lower than when specimens were exposed to light; (b) cure 10 minutes postmix was almost always equivalent to 24-hour cure, indicating insignificant contribution of auto cure following initial set; & (c) claims of cure continuing over time are not warranted.

2. CARBAMIDE PEROXIDE BLEACHING TECHNIQUE FOR SINGLE TOOTH DEMONSTRATED

Chong, Y.H., Quint Int 1993; 24:233-235.

Bleaching vital teeth outside dental office using carbamide peroxide is well-known & widely accepted, especially for removal of brown, orange, or yellow hues. However, most practitioners have not considered use for only one or a few discolored teeth. Author describes successful bleaching of one central incisor by making conventional "nightguard" splint for entire arch, but placing bleach gel only in nightguard space where darkened tooth was located. Opalescence (Ultradent Products) was used for 4 weeks, 8 hours per night.

IS THERE ROOM IN DENTAL PRODUCT MARKETPLACE FOR SHOPPING SERVICES?

Publication of advantages & disadvantages of national shopping service has resulted in unprecedented praise & criticism (Feb. '93 CRA Newsletter report on Profitfinder). Evaluation of shopping services was initiated in spring '92 in response to requests from clinicians. Goals of evaluation were to confirm claims, ascertain if membership fees were justified, & determine clinical usefulness of national shopping for dental products. Results showed national shopping very informative in gaining national perspective on product costs. Profitfinder was most highly rated of shopping services evaluated because it: (1) allowed any dealer to participate; (2) dissociated Profitfinder from transaction between dentist & dealer by making money paid to Profitfinder clearly evident in annual membership fee rather than part of product cost; & (3) reduced annual cost of dental products for users by about 25%.

Profitfinder does not sell products, it simply lists various costs charged for a product by dealers across U.S. Profitfinder members are informed of costs via quarterly listings in booklet or computer disk, or via contact by fax or toll free telephone number. Clinicians select their own purchase source which can be their local dealer, a dealer anywhere in U.S., or one of four major supply houses who have agreed to sell to Profitfinder members for lowest cost found nationally by Profitfinder.

Some dental retailers complain Profitfinder, & other national shopping services, threaten their business because services they provide to dentists force them to charge more. These services include: (1) Sponsorship of local, state, & national dental meetings; (2) Equipment maintenance; (3) Sales force that calls on offices; (4) Providing exchanges &/or refunds on products returned by clinicians; (5) Loaner equipment; (6) Maintenance of local inventories; (7) Personnel listings; (8) Scholarships & loans for students; (9) Office planning; (10) Business counseling, etc. Mention of these points by dealers is valid. Also valid is fact that clinicians realize it is they, & ultimately their patients, who pay for these services. Services provide dealers with goodwill & recognition they hope will attract more customers, & services provide clinicians with convenience & support.

Questions about shopping service concept are:

- (1) Is there a place for everyone in dental market—dealers, catalog suppliers, & national shopping services?
- (2) If a dealer is serving & determining pricing fairly, what is there to fear?
- (3) Is it restraint of trade & price fixing when a dealer pressures a manufacturer to withdraw right to sell products from dealers who choose to sell at lower prices?
- (4) Is not freedom to set prices essential to free enterprise system?

In spite of objections, national & international shopping services are trend of future for at least some purchasers. Several groups are now working on ingenious ways to combine computer networking &/or faxes & private labeling to offer new, fast, economical marketing. CRA did not conceive these ideas, CRA only evaluates efficacy & clinical usefulness. Therefore, why should CRA report be disputed? Is there something amiss in pricing of dental products? Why isn't there a place for many types of retailers in today's marketplace?

★ ★ ★ ★ ★

Certifications:

ISO 13485 Certification:

ZERTIFIKAT ♦ CERTIFICATE ♦ 認証証書 ♦ CERTIFICADO ♦ CERTIFICAT



Product Service

CERTIFICATE

No. Q1N 08 07 67012 002

Holder of Certificate: D.B.I. AMERICA CORPORATION
 254 Crystal Grove Blvd
 Lutz FL 33548
 USA

Certification Mark:

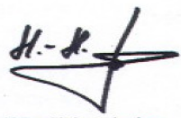


Scope of Certificate: Design and Development,
 Production, Service and Distribution
 of Dental Piezo Ultra Sonic Scaler;
 Combination Dental Piezo Ultra
 Sonic Scaler with Dental Electric Motor

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a quality system which meets the requirements of the listed standard(s). See also notes overleaf.

Report No.: DM804523-102

Valid until: 2011-09-30



Hans-Heiner Junker



Date, 2008-10-23

Page 1 of 2



Akkreditiert durch
 Zentralstelle der Länder
 für Gesundheitsschutz
 bei Arzneimitteln
 und Medizinprodukten
 ZLG-ZQ-999.98.12-46

TÜV SÜD Product Service GmbH
 Zertifizierstelle
 Ridlerstr. 65 · 80339 München
 Germany

Certifications:

CE Certification:

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT

EC-CERTIFICATE

Full Quality Assurance System

(Annex II, section 3 of the Directive 93/42/EEC on Medical Devices)

No. G1 08 07 67012 001



Product Service

Manufacturer: D.B.I. AMERICA CORPORATION
254 Crystal Grove Blvd
Lutz FL 33548
USA

EC-Representative: Maecolux S.A.
32 Demier sol Residence Dali
G.D. Luxembourg
25436 Luxembourg
LUXEMBOURG

Product Category(ies): Dental Piezo Ultra Sonic Scaler;
Combination Dental Piezo Ultra
Sonic Scaler with Dental Electric Motor

The Certification Body of TÜV SÜD Product Service GmbH declares that the aforementioned manufacturer has implemented a quality assurance system for design, manufacture and final inspection of the respective products / product categories according to Annex II section 3 of the Directive 93/42/EEC on Medical Devices. This quality assurance system conforms to the provisions of this Directive and is subject to periodical surveillance. For marketing of class III products an additional Annex II.4 certificate is mandatory. See also notes overleaf.

Report No.: DM804523-102

Valid until: 2013-10-22

Date, 2008-10-23

Hans-Heiner Junker



TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 93/42/EEC concerning medical devices with identification no. 0123.

Page 1 of 2

Certifications:

510K Certification



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

SEP - 2 2005

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

Mr. Ubiraci R. Fernandes
Vice President
D.B.I. America Corporate
2909 Busch Lake Boulevard
Tampa, Florida 33614

Re: K051910
Trade/Device Name: Ultrasonic Scaler
Regulation Number: 21 CFR 872.4850
Regulation Name: Ultrasonic Scaler
Regulatory Class: II
Product Code: ELC
Dated: June 24, 2005
Received: July 14, 2005

Dear Mr. Fernandes:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.



Page 2 – Mr. Fernandes

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

Chiu Lin, Ph.D.

Director

Division of Anesthesiology, General Hospital,

Infection Control and Dental Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

E1

Indication for Use

510(K) number (if known)

K051910

Device Name:

Ultrasonic Scaler (21CFR872.4850)

Indication for use:

The Ultrasonic Scaler is intended to be used by a dentist and/or dental hygienist for use during dental cleaning to remove calculus deposits from the teeth.

Prescription Use
(Per 21 CFR 801.109)

Susan Runne
(Division Sign-Off)
Division of Anesthesiology, General Hospital,
Infection Control, Dental Devices
510(k) Number K05 1910



Evaluations and Tests Performed

CLASSIFICATION REPORT INTERTEK TESTING SERVICES NA INC.

27611 La Paz Road, Suite C

Laguna Niguel, CA 92677

Job No. 3071152-108

Issued: April 6, 2005

Page 1 of 43

REPORT NO. 3071152-002

INSPECTION, TESTS AND EVALUATION
OF
ULTRASONIC TEETH CLEANERS
RENDERED TO

DBI AMERICA CORPORATION
TAMPA, FL

GENERAL: This Report gives the results of the inspection, tests and evaluation of ultra sonic scaler and ultra sonic scaler/polisher for compliance with applicable requirements of the Standard(s) for Safety for Medical Electrical Equipment, Part 1: General Requirements for Safety (UL 60601-1, 1st edition, dated April 25, 2003) (CSA C22.2 No. 601.1-M90 include C22.2 No. 601.1S1-94 (IEC 601-1, Amendment 1: 1991) Supplement No. 1-94 to CAN/CSA C22.2 No.601.1-M90), without the requirements of Electromagnetic Compatibility. The investigation was begun on 1/24/05 and completed on 4/22/05. A prototype sample in good condition was provided by the client on 1/24/05 and tested at Intertek's Laguna Niguel, CA facility.

Safety for Medical Electrical Equipment, Part 1: General Requirements for Safety
(UL 60601-1, 1st edition, dated April 25, 2003) (CSA C22.2 No. 601.1-M90 include C22.2 No. 601.1S1-94 (IEC 601-1, Amendment 1: 1991) Supplement No. 1-94 to CAN/CSA C22.2 No.601.1-M90)

Applicant: DBI America Corporation
2909 Busch Lake Blvd.
Tampa, FL 33614 USA
Contact: Mr. Ubiraci Fernandes
Phone: (813) 931-3590
Fax: (813) 931-7457

Manufacturer: DBI America Corporation
2909 Busch Lake Blvd.
Tampa, FL 33614 USA
Contact: Mr. Ubiraci Fernandes
Phone: (813) 931-3590
Fax: (813) 931-7457

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Report No. 3071152-002
DBI America Corporation

Page 3

Issued: 4/22/05
Revised: 09/08/08

PRODUCT DESCRIPTION

PRODUCT COVERED

Ultra Sonic Scaler, model Swift (SW03.3), [Swift Portable \(SW03.37P, SW03.38P\)](#)
Ultra Sonic Scaler/Polisher, model Maxi Sonic III (MS03), [SP 100, SP 100 AK, SP 200, SP 200 AK](#)

PRODUCT DESCRIPTION

The equipment listed in this report is ultra sonic scaler and ultra sonic scaler/polisher.

MODEL SIMILARITY

Both the Swift and the Maxi Sonic models use same power supply and similar components.

[Both the Scaler and the Scaler/Polisher models have an external power supply configuration and an internal power supply configuration.](#)

ELECTRICAL RATINGS

<u>Product</u>	<u>Voltage</u>	<u>Current/Power</u>	<u>Frequency</u>
W/ External Power Supply	120 Vac	60 VA	60 Hz
- Swift	24 Vac	1.0 A	60Hz
- Maxi Sonic III	24 Vac	20 VA	60 Hz
W/ Internal Power Supply			
- Swift Portable	115V	1A	60 Hz
- SP 100, SP 100 AK, SP 200, SP 200 AK	115V	1A	60 Hz

Report No. 3071152-002
DBI America Corporation

Page 4

Issued: 4/22/05

TEST PERFORMANCE NO. 1

A representative sample of the product was tested in accordance with the Standard(s) for Safety for Medical Electrical Equipment, Part 1: General Requirements for Safety (UL 60601-1, 1st edition, dated April 25, 2003) (CSA C22.2 No. 601.1-M90 include C22.2 No. 601.1S1-94 (IEC 601-1, Amendment 1: 1991) Supplement No. 1-94 to CAN/CSA C22.2 No.601.1-M90), without the requirements of Electromagnetic Compatibility.

The following tests were performed:

<u>Test Description</u>	<u>UL 60601-1 & CSA C22.2 No. 601.1 Clause</u>
Humidity Preconditioning Treatment	4.10 & 44.5
Marking Durability	6.1
Power Input	7
Limitation of Voltage	15
Protective Earthing	18
Leakage Current Before and After Humidity Treatment (Earth & Enclosure)	19
Dielectric Strength Before and After Humidity Treatment	20
Mechanical Strength	21
Stability	24
Temperature	42
<u>Overflow, Spillage, Leakage, Humidity, Ingress of Liquids,</u>	44
<u>Cleaning and Disinfection</u>	
Abnormal Operation	52

Results of the tests indicate the specimens conform to applicable test criteria.

Report No. 3071152-002
DBI America Corporation

Page 5

Issued: 4/22/05

CONCLUSION

A representative sample of the product covered by this report has been evaluated to the applicable requirements of the Standard(s) for Safety for Medical Electrical Equipment, Part 1: General Requirements for Safety (UL 60601-1, 1st edition, dated April 25, 2003) (CSA C22.2 No. 601.1-M90 include C22.2 No. 601.1S1-94 (IEC 601-1, Amendment 1: 1991) Supplement No. 1-94 to CAN/CSA C22.2 No.601.1-M90), without the requirements of Electromagnetic Compatibility.

Report prepared by:

Original Signatures On File

Jim Cheng
Engineering Team Leader

Report approved by:

Original Signatures On File

John Luong
Engineering Team Leader

Available Models:



Swift Portable with Ergo Ultra Light Handpiece

Includes: (1) Attached Ergo LED Handpiece, (1) 500ml/16oz Bottle with Lid, (1) Tip# PE39, (1) Tip# PE38, (1) Tip# PE37 (*unless specified*), (3) ErgoGrip Ultra Light Sleeves, (3) Metal Tip Wrenches, Power Cord, Water Hose with Quick Disconnect, Replacement 1A Fuse and Tip Measuring Card.

Part# SW03.37PL (115V)

Part# SW03.37P220L (230V)



Swift Portable with Ergo Basic Handpiece

Includes: (1) Attached Basic Ergo Handpiece, (1) 500ml/16oz Bottle with Lid, (1) Tip# PE39, (1) Tip#PE38, (1) Tip#PE37 (*unless specified*), (3) ErgoGrip Basic Sleeves, (3) Metal Tip Wrenches, Power Cord, Water Hose with Quick Disconnect, Replacement 1A Fuse and Tip Measuring Card.

Part# SW03.37P (115V)

Part# SW03.37P220 (230V)



Accessories



Scaler Tip# PE39

Is used for lingual and buccal supragingival scaling. It is one of our most popular tips and is used for the removal of heavy calculus. Recommended power

Part# 5608301

Type: Universal / Heavy Calculus Removal



Scaler Tip# PE38

It is primarily used for subgingival scaling but can also be used for light supragingival scaling. It is longer than Tip# 33 and has the same ergonomic design as Tip# 37. Both for lingual and buccal use. Available in Left or Right Angle. Recommended

Part# 5608371

Type: Periodontics



Scaler Tip# PE37

Has a wide range of uses and can be used for both supragingival and subgingival treatments. The slim tip reaches easily into deep pockets and can also be used for furcations. Available in Left or Right Angle. Recommended power setting: 10-70%

Part# 5608341

Type: Universal



Scaler Tip# PE32

Is used for lingual and buccal supragingival scaling. Recommended for the removal of gross calculus. Recommended power setting: 10-100%

Part# 5608291

Type: Hoe / Heavy Calculus Removal

Accessories

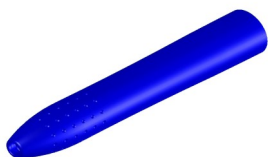


Scaler Tip# PE33

Is designed for subgingival scaling and can also be used for furcations. Available in Left or Right Angle. Recommended power setting: 10-70%

Part# 5608311

Type: Periodontics



ErgoGrip Basic Protective Sleeve

Silicone sleeve for minimal torque on fingers and hands. Eliminates uncomfortable vibrations and designed with a special traction surface for better grip. To be used together with The Ergo Basic Handpiece.

Part# 4516331

Type: Sleeve



ErgoGrip UltraLight Protective Sleeve

With the same features of the ErgoGrip Basic Sleeve plus a built in lens for optimal light focus it will be a pleasure to hold the handpiece and there's no risk of it sliding out of your hands even when your gloves are wet. Dirt resistant and easy to clean silicone surface.

Part# 5606451

Type: Sleeve



Metal Tip Wrench

A universal wrench for installing scaler tips on the handpiece. Can be used with new DuraGrade Max Tips and the hexagon style tips.

Part# 4514651

Type: Tip Wrench



Limited Warranty

Warranty

All products are warranted to be free from defective material and workmanship under normal use and service, for a period of two (2) years (except ultrasonic scaling tips, Cassettes and Sleeves which are only warranted for a period of three (3) months) from the date of delivery to the buyer (proof of invoice required). DBI's sole obligation under this warranty is to repair or at its option replace the defective part of the product, provided the part or product is returned to its facility with prepaid postage, delivery, or freight charges. In the event warranty service must be performed to correct any defect, only DBI shall provide this service upon mutually agreeable arrangements made in advance. DBI and its distributors will not accept the return of goods unless authorized in writing prior to the return of any shipment. The Shipment must be made in accordance with the distributor's instructions. Except as otherwise provided herein, there is NO WARRANTY, representation or condition of ANY KIND, express or implied (including NO WARRANTY OF MERCHANTABILITY OR FITNESS) and none shall be implied by law. THE EXPRESS WARRANTY AND REMEDIES CONTAINED HEREIN (1) ARE MADE SOLELY TO THE FIRST PURCHASER FOR BENEFICIAL USE (THE BUYER), (2) ARE THE SOLE WARRANTIES AND REMEDIES, (3) ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS OR OTHER LIABILITIES, WHETHER EXPRESS OR IMPLIED, AND ALL OTHER REMEDIES FOR BREACH OF WARRANTY OR ANY OTHER LIABILITY OF THE MANUFACTURER, IN NO EVENT SHALL D.B.I. AMERICA BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES.

No person, agent distributor or dealer is authorized to change, modify or extend the terms of the warranty in any manner, whatsoever.

This Warranty is void when failure of defect is caused by conditions beyond DBI's control, such as damage resulting from mishandling, neglect, misuse, improper maintenance, accident or alteration or repair by anyone other than an authorized dealer.

Do not send your product for repair directly to the factory or any address in the user manual. Always contact your local dealer.

Return Merchandise

Before we can consider your request for returns please

1. Provide the copy of the DBI invoices for each product
2. **Be sure products have not been used. Merchandise must be returned in the original packaging and in original (new) condition with all the components.**
3. Be aware that returns must be made within 6 months of original purchase date (DBI to Dealer Purchase)
4. **Authorized returns will be subject to 20% restocking fee.**
5. No return will be accepted without prior authorization. Authorization for re-

Complete DBI Brochure



Helping Create Beautiful Smiles!


D.B.I.

Swift Portable

Ultrasonic Piezo Scaler

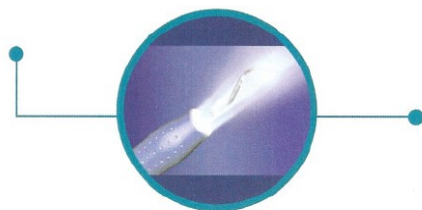
The Swift is a portable, self contained Piezo ultrasonic scaler requiring only electrical connection. The unit includes an exterior water hookup and a 500-ml self-pressurized reservoir that can be filled with either water or medicament. The Swift features tips with linear movement to minimize noise, reduce patient discomfort, and speed calculus removal. A fine mist during the procedures enhances visualization. Autoclavable sleeve and tip eliminate the need to autoclave the handpiece, and therefore increase handpiece life. The scaler offers a wide tip selection including endodontic, apical surgery, and periodontal. The Swift Portable is also available with an optional luminous handpiece.



Swift

Ultrasonic Piezo Scaler

The Swift is a compact table top unit with a sleek design. Whether in a cabinet or table top the frontal knobs allow for easy control adjustment. Gentle on patients yet powerful with 28,000 – 30,000 HZ. The ability to see your work, Piezo Ultrasonic scalers use less water than traditional scaling methods. Unit includes autoclavable tips, sleeves and wrenches. The Swift is also available with an optional luminous handpiece.



Optional 70,000 Lux LED handpiece.

	Swift Portable	Swift
External Dimensions (in)	6.3"W X 8.5"L X 6.5"H	6.3"W X 8.5"L X 3.8"H
External Dimensions (cm)	16.5W X 21.6L X 16.3H	16.5W X 21.6L X 14.6H
Packaged Unit Dimensions (in)	12.1"W X 9.3"L X 6.5"H	12.1"W X 9.3"L X 6.5"H
Packaged Unit Dimensions (cm)	30.8W X 23.5L X 16.5H	30.8W X 23.5L X 16.5H
Actual Weight (lb)	3.5 lbs 1.6 kg	3.3 lbs 1.5kg
Packaged Unit Weight (lb)	6.0 lbs 2.7 kg	6.0 lbs 2.7 kg
Power	28,000Hz to 30,000Hz	28,000Hz to 30,000Hz
Voltage/Hz	115V/60Hz or 230V/50Hz	115V/60Hz or 230V/50Hz
Limited Warranty	2 Year Warranty	2 Year Warranty

Biojato

Bicarbonate Powder Jet

Finally a prophylaxis unit that goes where you go. Take this system from room to room, connect to any high speed tubing and you're ready to work. The Biojato utilizes the delivery unit's air, water and foot control.

- Water air and powder come together at the tip; this feature helps prevent clogs.
- Air filter, removes humidity from the air to prevent blockage.
- Removable polishing handpiece for easy sterilization.
- Gently removes stains and plaque from all surfaces, including interproximals.
- Portable, weighs less than 2lbs.
- 1 year warranty.

Packaged Unit Dimensions:	8.5W X 8.5L X 6.0H (in); 22W X 22.0L X 22.0H (cm); 2.2lbs (1.1kg).
Limited Warranty:	1 year.



Helping Create Beautiful Smiles!



SP200 Portable

Combo Piezo Ultra Sonic Scaler and Electric Motor

The SP200 is a self contained Scaler/Polisher workstation. The unit requiring only electrical connection includes a 500 ml self-pressurized reservoir that can be filled with water or medicament. The Ideal unit for clinics requiring extra mobility or for offices without plumbing. Scaler tips offer linear movement to speed calculus removal and minimize noise and heat. Wide tip selection including endodontic, apical surgery, and periodontal. The SP 200 is also available with an optional lighted scaler handpiece. Standard E-Type motor accepts most E-type attachments. Optional "lab" or upgrade E-type electric motor available.



Optional E-type electric motor kit



Optional 70,000 Lux LED handpiece.

SP200	
External Dimensions (in)	9.0"W X 10.0"L X 3.5"H
External Dimensions (cm)	22.9W X 25.4L X 8.9H
Packaged Unit Dimensions (in)	12.1"W X 9.3"L X 6.5"H
Packaged Unit Dimensions (cm)	30.8W X 23.5L X 16.5H
Actual Weight	4.6 lbs 2.1 kg
Packaged Unit Weight (lb)	7.0 lbs 3.2 kg
Scaler Power	28,000Hz to 30,000Hz
Electric Motor Speed	0 to 35,000 rpm
Voltage/Hz	115V/60Hz or 230V/50Hz
Limited Warranty	2 Year Warranty



Flash Portable

Polisher & Drill

Great things come in small packages. The Flash Portable is a compact and light weight cordless combination polisher and drill. The Flash Portable features a high quality rechargeable Ni-Mh battery and a convenient carrying case for mobility and storage. High torque brush motor with speed up to 20,000 rpm.

- Compact and Light Weight. Cordless
- Battery Operated, Rechargeable. 140 minutes of operation when using battery.
- Also operates directly connected to AC Power.
- Easy operation with Power and Variable Speed Control Switch
- Forward/Reverse Rotation.
- Activated by either foot control or hand control
- Accepts disposable Contra Angles
- Optional E-Type Motor with Contra Angle & Straight Attachments
- Carrying Case and Holster included.
- 1 year warranty



Optional E-type electric motor kit



Flash DP

Table Top Micromotor

The Flash DP is an efficient and reliable Electric Micro Motor. High torque brush motor reaching speeds of up to 35,000 rpm. Compact and light weight for effortless mobility and storage.

- Compact and ergonomic design
- Built in motor cradle and bit stand
- One touch motor rotation direction changer
- Automatic circuit protection system (reset function)
- Variable speed foot pedal or hand controlled speed
- Accepts disposable Contra Angles
- Optional E-type motor
- 1 year warranty.

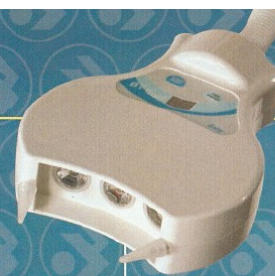
	Flash DP	Flash Portable
Packaged Unit Dimensions (in)	14.0"W X 10.5"L X 5.0"H	14.0"W X 11.5"L X 4.0"H
Packaged Unit Dimensions (cm)	36.0W X 26.5 L X 12.0 H	36.0W X 29.0L X 10.5H
Actual Weight	3.2 lbs 1.5 kg	1.1 lbs 0.5 kg
Packaged Unit Weight (lb)	6.5lbs 3.0 kg	4.5lbs 2.1 kg
Voltage/Hz	115V-240V 50/60Hz	115V-240V 50/60Hz
Limited Warranty	2 Year Warranty	2 Year Warranty



Mega Light WH

LED Whiting Light

The Mega Light WH is a powerful but gentle bleaching light. A low heat emitting 3 Watt blue LED light with a 50,000 hour life expectancy. Auto memory and multiple time settings of 5, 10, 15, 20 and 25 minutes enabling efficient patient treatment. The movable arm allows for easy adjustment. The Mega Light WH's compact and light weight design makes it an ideal space saver.



Mega Light CL

LED Cordless Curing Light

No strings attached with the new Mega Light Cordless. The latest LED Technology with 1600mw/cm² of power. Two connection options, battery or direct. The digital display makes operating your new curing light simple and fast. The Mega Light CL comes equipped with three programs: Fast, Ramp and Pulse. Preset curing times of 5, 10, 20, 30, 40 and 50 seconds.



Mega Light Turbo

LED Curing Light

The Mega Light Turbo is a LED Curing light with 800mw/cm² of power. The light offers three programs: Fast, Ramp and Pulse. Preset curing times of 5, 10, 20, 30 and 40 seconds with a beep after every 10 seconds. The 11mm light guide offers 360° rotation.

	Mega Light WH	Mega Light CL	Mega Light Turbo	Mega Light S
Packaged Unit Dimensions (in)	21.0"W X 20"L X 5.0"H	9.5"W X 6.5"L X 5.0"H	10.0"W X 8.5"L X 2.75"H	9.5"W X 5.5"L X 2.0"H
Packaged Unit Dimensions (cm)	52.5W X 50.0L X 10H	24.0W X 16.5L X 13.5H	25.5W X 21.0L X 6.5H	24.0W X 13.5L X 5.0H
Actual Weight	10.5 lbs 4.8 kg	1.0 lbs 0.45 kg	0.7 lbs 0.3 kg	0.2 lbs 0.10 kg
Packaged Unit Weight (lb)	12.8lbs 5.8 kg	2.0 lbs 0.91 kg	1.8lbs 0.81 kg	0.4lbs 0.18 kg
Voltage/Hz	115V-240V 50/60Hz	115V-240V 50/60Hz	115V-240V 50/60Hz	115V-240V 50/60Hz
Limited Warranty	1 Year Warranty	1 Year Warranty	1 Year Warranty	1 Year Warranty

Mega Light S

LED Cordless Curing light

The Mega Light S is a compact cordless LED light with 1000mw/cm² of power. Two power options, battery or direct. Preset curing times of 10, 20 and 30 seconds. Ideal light for sealants.



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Available Certificates

ISO13485

CE Mark
(Swift and SP200 Lines)

Electrical Safety

510(K) USA



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